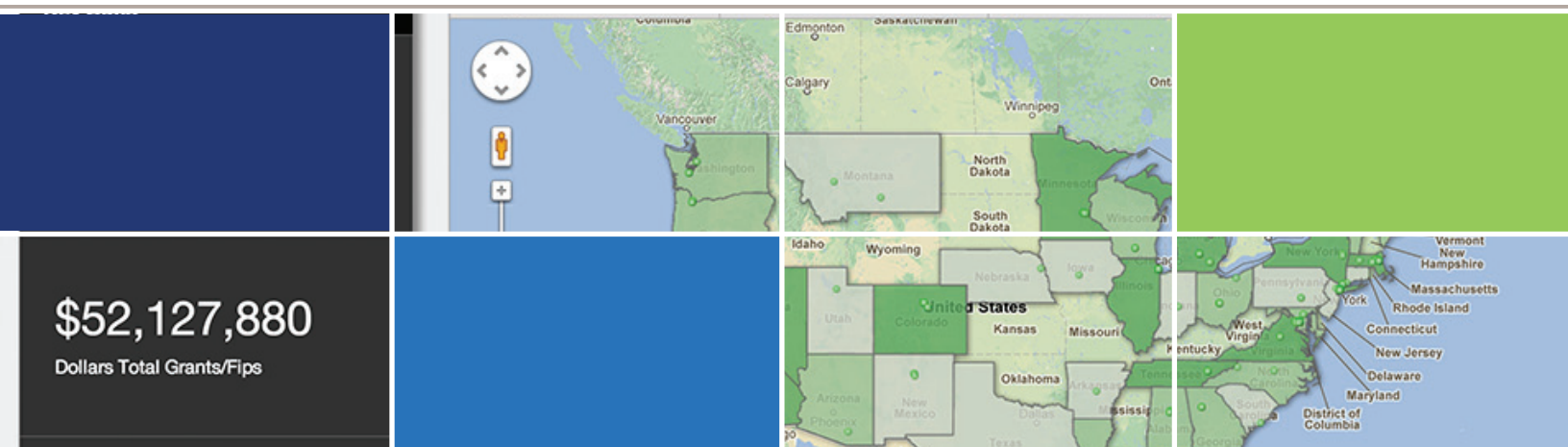




Technology Affinity Group
Promoting technology in philanthropy

idealware

DATA AT A FOUNDATION'S FINGERTIPS: CREATING AND BUILDING DASHBOARDS



March 2013

TABLE OF CONTENTS

Introduction 3

Case Studies

 Bill & Melinda Gates Foundation 8

 Community Foundation for Southeast Michigan10

 The Energy Foundation 11

 Ford Foundation 13

 Gaylord and Dorothy Donnelly Foundation15

 The Kresge Foundation 17

 Surdna Foundation20

 W.K. Kellogg Foundation22

About TAG 24

About Idealware24

CREATING AND BUILDING DASHBOARDS

Much like the gauges on your car's dashboard, which keep critical information within immediate reach, dashboards present an organization with data related to its operation, performance, well-being, and overall health. Generally speaking, dashboards gather, organize, and present information in a friendly way to help organizations more effectively measure, monitor, and manage the way they work.

This is straightforward in concept, but in practice there are nearly as many different types of dashboards as foundations implementing them. Some foundations create dashboards with an *operational* focus, looking at day-to-day level data like the number of requests in the pipeline or metrics to track the efficiency of their process. The vast majority include *program spend* information to see the money allocated compared to budgeted for a program, and a few have created dashboards to track indicators of *program impact*.

To further confuse the issue, dashboards can be built in such common tools as Microsoft Excel or Access, they can be run as reports from a grants management system, they can be created using off-the-shelf Business Intelligence tools, or they can be custom-built—and the dashboards themselves can be anything from quick one-page spreadsheets to sophisticated systems that offer trend analysis, forecasting, and drill-down capabilities.

Despite the wide range of variety, there is some overlap among foundations using dashboards—mostly in the goals they're hoping to get from them. A dashboard can consolidate foundation information in a way that's accessible and easy to understand, even for those not involved with data on a day-to-day basis. Those who need the information can get it when they need it—without delay, and without needing to bother line staff to extract it from the system. Dashboards can also facilitate decision-making by summarizing information so that everyone on staff has the same data.

Can your foundation benefit from dashboards? Most likely, yes—simply compiling information and making it more accessible can be a useful exercise for an organization of any size. But how do you decide what information

A dashboard can consolidate foundation information in a way that's accessible and easy to understand, even for those not involved with data on a day-to-day basis.

to include? And how do you define and implement something that will work well for you? In this report, we combine insights from conversations with 10 different foundations with our previous research on methods for thinking about data-based decision making to offer a step-by-step process to design and create your own dashboard. To help you learn from the experiences of those foundations that have gone before you, we also include eight detailed case studies of foundations that have created their own dashboards.

1. Define Who and What Your Dashboard Is For

The term “dashboard” means different things to different people. For some foundations it implies an operational task list for line staff to use in day-to-day work. Others see it as a friendly way to let staff who don't regularly work with data access core metrics and information. Some envision a dashboard as a way to present key indicators—like efficiency metrics or those about program impact—to executives, the board, or even the general public.

Before you dive in to dashboards, it's critical to define what they mean to your organization. Ask yourself:

- Who will be the highest priority users of the dashboard, and will there be additional users?
- Will non-staff members, like the board or the public, be able to see your dashboard?
- Is your goal to centralize a set of core metrics to keep everyone on the same page, or to let each staff member see the metrics that will most help them? Or maybe a balance of those two goals?
- Do you want to increase the ability of program staff or executives to look up the information they want as a way to decrease the volume of requests on your grants team?

Work with the executive team and organizational sponsors to define what a successful dashboard would accomplish. It's often also useful to define what it won't accomplish. After all, a dashboard that attempts to be all things to all people is unlikely to handle everything well—that is, if the whole dashboard project doesn't completely crash and burn under the weight of too many expectations.

2. Understand What Your Users Want From the Dashboard

With your general goals and audiences defined, make sure you understand what your audience will find useful. What type of information do they want to see? What specific metrics would help them. What features are they likely to use?

One-on-one discussions or meetings with small groups are likely the best ways to understand the needs and desires of your users. Ask them how they're currently looking at the relevant pieces of information—if they've created an Excel spreadsheet or hand-created reports, for instance, that shows a need otherwise being unmet. See what they would define as the most desirable pieces of information. One good way to do this is to ask staff to create a “magic dashboard” that shows what they'd ideally like to see if anything was possible. Don't be surprised to find that your staff's “blue-sky” desires are, in fact, quite basic and well within your reach.

A dashboard that attempts to be all things to all people is unlikely to handle everything well—that is, if the whole dashboard project doesn't completely crash and burn under the weight of too many expectations.

Based on the needs highlighted by your staff, try to determine the following:

- **Is a simple summary of key data likely to be helpful?** Sometimes just being able to see some basic sums and averages by category can make a big difference.
- **Does it seem useful to define more complex indicators to be able to better visualize your organization's process or success?** For instance, creating a display of the number of days on average a request spends in each of your grant stages could be very useful for some organizations, but is likely to require more time than a simple tally of current data.
- **Is it important to let staff tailor their own dashboard of indicators?** It can be helpful for staff to be able to define which metrics they want to use in their day-to-day work, but this will also add complexity.

Before it makes sense to start thinking about the format of the charts you'll display or the tools you'll use to make them, you need to define the specific metrics you'll use—and where the data will come from.

- **Is it important for staff to be able to drill down into details?** Allowing staff to see the big picture and then click through to see more detail can help them to put everything in context, but such dashboards are likely to be more complex to support than simple, static ones.
- **Is it important to allow for scenario planning?** Some organizations find it useful for staff to do hypothetical “what-if” analysis to see the impact of a potential grant on budgets and projections. This requirement may be hard to balance with others, though, as it will likely require staff members to enter data directly into the dashboard as opposed to simply navigating data pulled from other places.

If you find that you're juggling a lot of needs and desires, summarize them all into a requirements document and give each a priority. As with a typical requirements definition process, balance the critical needs with “nice-to-haves” to define a dashboard project that is both useful and reasonably achievable.

3. Map Metrics to Your Needs

At its heart, any dashboard is based on information. Before it makes sense to start thinking about the for-

mat of the charts you'll display or the tools you'll use to make them, you need to define the specific metrics you'll use—and where the data will come from.

This process is rarely trivial. Defining the right metrics requires a balancing act of two important factors:

- **What metrics will answer your specific questions?** Finding them might take an hour, or several years of strategy sessions. If you're planning a dashboard that focuses on supporting day-to-day work, the right metrics are likely to be made clear during conversations with your staff. But if you're hoping to look at such things as process efficiency or program effectiveness, simply getting your stakeholders to agree on what data will create an accurate picture may require a lengthy, in-depth facilitation process.

Simply getting your stakeholders to agree on what data will create an accurate picture may require a lengthy, in-depth facilitation process.

- **Where will the data come from, and how?** Defining the absolutely perfect metric is useless if you don't have the data to back it up. Similarly, some metrics will be much easier to calculate based on your current system, but that doesn't mean they'll be useful in decision-making. Consider the amount of work required to pull the data from your systems.

Don't underestimate the metric design process. Many of the organizations we spoke to found it both time-consuming and critical to their success. As one potential process, you could convene your stakeholders in a series of meetings to define first what specific

What technology should you use to support your dashboard? The options vary widely, largely because “dashboard” doesn’t imply a single technology.

decisions you’d like to support, and then the best way to determine metrics to help from the data you have. A consultant could be very helpful in this process—he or she could bring some useful outside perspective, and an outside person often has more success in navigating the often complicated politics around something as sensitive as the metrics by which you measure your success.

Be cautious about planning to collect additional data you don’t already have as part of the process for the first phase of a dashboard. Designing a new data collection process is time-consuming itself, and could well derail your dashboard project. It’s likely to make more sense to design something that will help staff use the data you already have and plan to iterate it as you collect more data and better understand what will be useful.

4. Choose Your Dashboard Platform

What technology should you use to support your dashboard? The options vary widely, largely because “dashboard” doesn’t imply a single technology. Dashboards can be out-of-the-box tools that sit on

top of a grants management system and integrate its data, reporting tools that pull information from various systems, or even just complex Excel spreadsheets.

We’ve identified four core options:

- **Excel.** While it may sound alarmingly basic, an Excel dashboard can be a good fit for certain applications—primarily static dashboards updated only periodically. Someone with substantial Excel experience can build a sophisticated spreadsheet with tabs designed to receive data from existing systems—which makes it straightforward for users to update the data—and then one or more summary tabs that format that raw data into chart, graphs, and other displays. The file can then be shared as a read-only visualization.
- **Your existing grants management system.** If your dashboard relies only on data tracked in your grants management system, it may be possible to use existing reporting tools to create it. This has the benefit of simplicity; you don’t have to move data from one place to another, and at least some staff will be familiar with the tool. It may substantially limit your options on formatting, however, and might require high-level staff to access a system they don’t currently use.
- **A plug-in reporting or dashboard tool.** It could make sense to use a reporting tool designed to map to your data and create custom reports, especially if your data is coming from only a few systems. This could be an ad-hoc reporting tool like Crystal Reports, a tool designed specifically to create dashboards like iDashboards, a graphical analysis environment like Tableau, or a high-end business analysis tool like Cognos. (Idealware has more information on its website about these types of tools at <http://www.idealware.org/articles/beyond-dashboards-business-intelligence-tools-program-analysis-and-reporting>)
- **A custom-built dashboard.** If you need to pull many different kinds of data from many different systems, it might be as straightforward to use existing ETL (Extract, Translate, and Load) tools and web platforms to build your dashboard as it is to map a plug-in tool. Microsoft Business Intelligence also offers a platform to build your custom dashboard using a set of tools that includes SharePoint.

5. Design Charts and Displays

Selecting a tool for your dashboards and deciding what information to include is part of the challenge—so is designing dashboards that will truly be useful to your staff. Visual appeal is a key aspect of what makes a dashboard friendly to a large audience, but make sure your visuals actually convey substantial information. It's easy to get carried away with visual gimmicks that don't help your staff to really understand the data.

Working with someone who has information design experience can be very helpful in maximizing the usefulness of your dashboard. This skill set is a combination of graphic design and data visualization, and is geared around the desire to show data in a clear, clean way that's easy to read.

6. Implement and Roll Out Your Dashboard

With all of the many design considerations behind you, you still need to actually map your data and create your dashboard. This could be a matter of a couple of weeks for a straightforward implementation, or could easily span months for a more complex one.

When it's finally up and running, don't forget the need to roll it out in a way that will encourage staff to buy-in to using it. Make sure people know it exists, and what it's capable of. A demo will show them how easy it is to get information—and if it's not so easy or if the system is particularly complex, training could be very helpful.

As with any system, it can be useful to enlist organizational “champions” to advocate for the system and help their peers understand how it can help them.

7. Plan to Iterate

Once you've implemented the dashboards, remember that they're not locked into place. Plan to adapt them to better meet demands or changing needs. Dashboards are particularly challenging to define and design to be optimally useful the first time around, as your staff will often have little experience themselves on the type of metrics and charts that would really be useful for their needs.

Visual appeal is a key aspect of what makes a dashboard friendly to a large audience, but make sure your visuals actually convey substantial information.

Lean on your staff—the people *using* the dashboards—to find out where they're succeeding and where they're not, and go into the process expecting that more than one phase will be needed to make the most of your dashboard. “Go into it more open-minded,” said the Gaylord and Dorothy Donnelly Foundation's Susan Clark. “If you think you're going to do something one way, be open to it changing.”

So What Does This Mean For Your Foundation?

Building effective dashboards to meet all of your foundation's needs is a long-term process with a lot of moving parts. Finding the right approach takes time, strategy, and most likely, a lot of work with your staff to define the right data, metrics, and displays.

Reading through the case studies of these foundations will give you a better sense of what they're doing, and how and why they're doing it. But their examples can also provide encouragement—take heart in the fact that you're not alone in what you're facing.

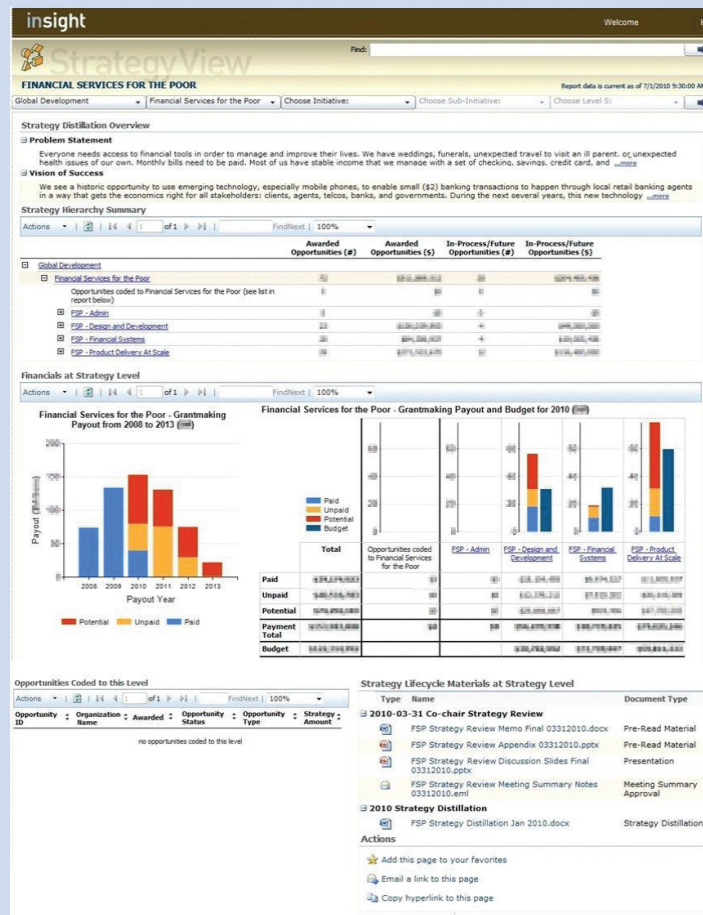
Don't be afraid to try something. A first attempt is likely to be very helpful in defining what's needed, even if you don't hit the nail on the head the first time.

CASE STUDIES

Bill & Melinda Gates Foundation

Seattle, WA

Taking a thoughtful approach to building a dashboard, foundation staff work to earn buy-in and support as part of the development process.



When Director of Business Intelligence Eleanor Bell left a data-driven organization to join the Bill & Melinda Gates Foundation, she found that her new organization had no dashboards to speak of. That's slowly changing as the foundation moves up the learning curve.

“We’re more integrated, more sophisticated, using more apps that pull data from different systems and serve it up to decision-makers so they know where they are and what they are doing,” she said.

The Bill & Melinda Gates Foundation is using a variety of tools to inform and build the dashboards, including Microsoft Technical Business Intelligence and Tableau.

Using Technology to Meet Staff Demands

Eleanor said the foundation uses a dashboard that lets user drill down.

“It shows all of our strategies and integrates text data—information about a problem statement, what the problem we’re trying to solve is, high-level stuff—

The foundation's entire staff has access to that dashboard, generating about 3,000 page views each month.

“Technology is cool, but technology can’t lead. It’s good to know something is possible, but it has to be very well-grounded in business need.”

and the amount of money we’re allocating toward that strategic goal,” she said. “You can drill in all the initiatives and sub-initiatives and see the actual grants invested toward that goal.”

The foundation’s entire staff has access to that dashboard, generating about 3,000 page views each month—mostly inside the president’s office and executive and director level, she said. The foundation is also developing another dashboard that’s more financial-specific.

“It captures all the thinking about how we meet payout but not go over budget and tracking all the grants in our pipeline and when they’re going to be hitting,” Eleanor said. “It lets people think about what’s coming and how to do a little forecasting, which they’d been ‘sort-of’ doing in Excel files on their desktops. They can’t go over budget, but they have to hit payouts, so the more they can have that info in a tool, the easier it is to manage it across the organization.”

Her team is developing the reporting applications, but looks to other areas of IT for input, and benefits from existing apps capturing relevant information, like the Microsoft Dynamics GP (formerly Great Plains) system writing the checks, and a house-built pipeline tool for hypotheticals. The development process involved intentionally applying the brakes to the technical side of things to allow the human side to keep pace, she said.

The Human Side of Technology

When Eleanor first stepped into her role at the Gates Foundation, she wanted to move faster but had to slow down to get other people on board.

“Each program team had its own Excel file, the Chief Financial Officer in each area was saying, ‘Hey, what if we just had one Excel file for this?’” she said. “Then the program areas looked at each other and said, ‘Hey, what if we could get one Excel file for everybody?’ Well, that wouldn’t be an Excel file, but it’s a great idea.”

The critical step was to get the financial leaders in each area to agree that the best course of action was a single tool, Eleanor said.

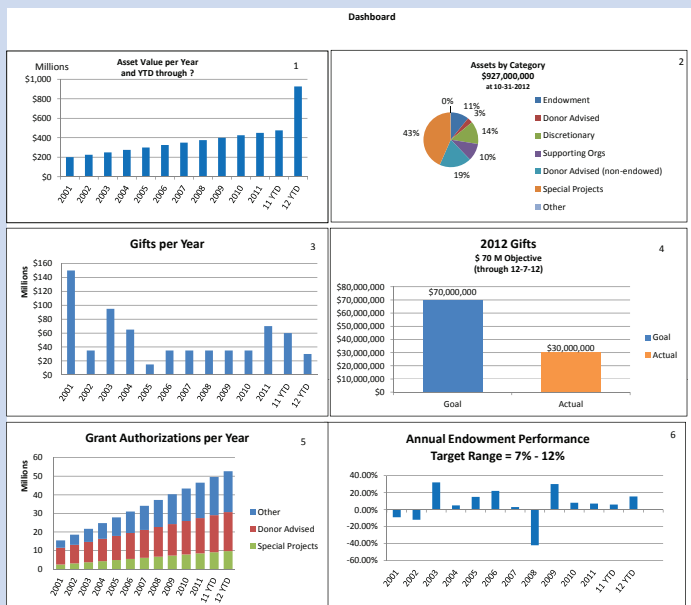
“The presidents of the program areas had to agree,” she said. “Technology is cool, but technology can’t lead. It’s good to know something is possible, but it has to be very well-grounded in business need. That’s lesson Number One, and I keep learning it over and over again.”

“If you think about the tech adoption of folks, there’s innovators, early adopters, etc., and people who never get on board. As a leader you don’t want to engage with the innovators, you will lose other people, so you need to look for the early adopters. It’s good to have sponsorship, too, but it’s the next level down that’s going to drive and shape this—the best sponsor can’t lead something like this.”

Community Foundation for Southeast Michigan

Detroit, MI
About 30 Staff

Though this foundation uses dashboards for the board and senior staff, it has yet to incorporate them into day-to-day staff use.



Currently, the Community Foundation for Southeast Michigan is using dashboards to report out high-level information to the Board of Trustees and senior staff—primarily to compare gifts with the annual goals set by the board, Account and Systems Administrator Brad Westlake said.

“We also take a look at our grant authorizations and try to split those up,” he said. “We have a lot of grant dollars going out right now, so we separate them out. The other thing we report out is performance on an annual basis going back the last 10 years.”

The foundation uses MicroEdge FIMS for grants management, and a few releases ago, MicroEdge introduced dashboards as part of the system. Brad said foundation staff found the dashboards helpful but felt they did not provide as much history as they wanted. Instead, staff built their own dashboards, pulling reports manually from the grants management system and entering them into Microsoft Excel.

“MicroEdge’s dashboards don’t have the ability to track gifts compared to our goal for gifts,” he said. “On the financial dashboard, I don’t have the ability to modify years—I can only go back five years in FIMS, but we can go back 10 in our own.”

The foundation’s dashboards are static in that they only report on past actions and don’t allow for future planning—something the foundation may consider moving forward, Brad said.

“...Dashboards with a little more capability would be a really useful tool.”

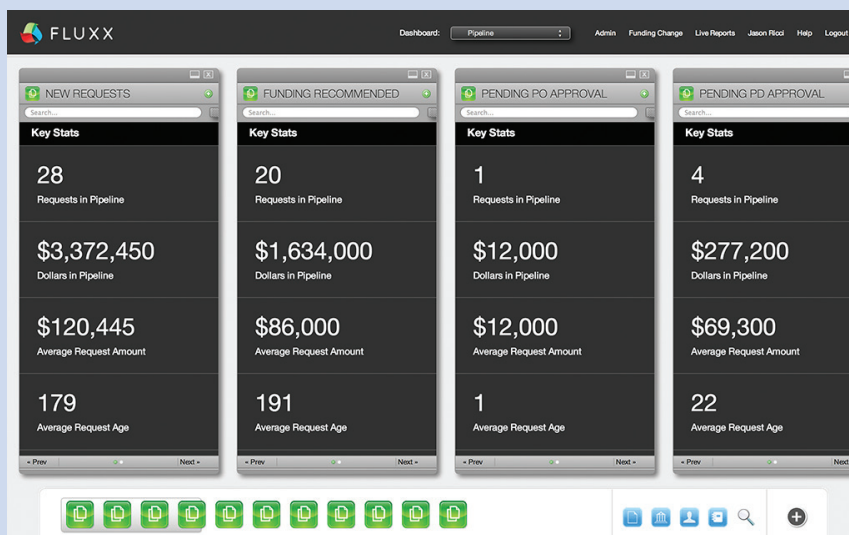
“We’re looking for something that will cover everything we do,” he said. “We purchase a bunch of modules now that all get lumped together in our grants management system as shadow systems. We have to pull everything together.”

The foundation is doing a systems assessment and considering replacing tools. Everything is on the table. Until those systems are sorted out, other changes are on hold.

“We’ve included dashboards in our requirements, but it’s more of a low-to-medium priority,” he said. “I don’t know that staff is clamoring for more than what we have now, but because the dashboards are only produced every quarter when we have a board meeting, they’re really providing the board with an overview of where the foundation is. With some tweaks and some understanding of what other staff are looking for, dashboards with a little more capability would be a really useful tool.”

The Energy Foundation San Francisco, CA

A mid-sized foundation creates its own grants management system to meet its needs for data-keeping and dashboarding.



With a mission to promote the transition to a sustainable energy future by advancing energy efficiency and renewable energy, the Energy Foundation has many day-to-day needs similar to those of other foundations—but enough differences that, when it wanted a new grants management system in 2008, it struggled to find one that met its unique needs. Among those needs was a strong desire for robust dashboarding capabilities.

Rather than customize an existing grants management option, the foundation decided to design and build its own.

“I want program officers to come in here and be able to get what they need.”

“A lot of foundations will show you the big fancy grants management software they built that cost millions of dollars, but you can’t use them because they’re so customized,” said Chief Information Officer Jason Ricci. “When we knew we were going to have to build a new system, we did it in a way that we could share it with the community. We didn’t want to spend a lot of money and have a system we couldn’t share.”

The end result, a product called Fluxx, is now an open source system currently being used by more than 40 clients—including some very large foundations.

Democratizing Data

To meet staff requests for a dashboard-heavy tool that allowed users to configure workflows to meet their own needs, the foundation designed the system around dashboards. All users can have as many of their own dashboards as they want—during design, the foundation made it a goal to give access to data to people who didn’t normally have access to data, Jason said.

“Historically you’ve seen this a lot in the foundation world—when you’re managing sets of data, you have a small group of people who are managing that data,” he said. “In an organization like ours, a little over 80 people, you might typically have a grants management team of three or four who interacts with the data 95 percent of the time, everyone else is sending emails asking for reports on that data and you’ll send them a PDF or spreadsheet.

“I want program officers to come in here and be able to get what they need,” he said. “We asked the program team and they said that every time they needed information, they had to ask the grants team for it. We asked the grants team, and they said they kept getting requests for data. We knew we could solve this. The CRM integration seems simple, but it’s key.”

The foundation also wanted a browser-based system accessible from anywhere so staff could quickly find the information they needed through their dashboards.

“What we try to do is kind of democratize the process of getting data in and out,” he said. “My perspective is, everyone should have access to the system and it should be inherently dashboard-based—everyone from program associates to the president needs to access some data.”

Customizing Workflows

Unlike many other foundations, the Energy Foundation does not operate off assets—it’s a re-granting organization with around 50 funding sources that include other foundations and individuals. Essentially, the foundation is a nonprofit that has to raise the money it gives away. One way it does that is by demonstrating its efficiency and effectiveness, Jason said.

“To do that, we have to have systems that show that,” he said. “We can make a grant really quickly, in under 30 days, and our system allows us to actually make a grant as quickly as one hour.”

The dashboards help both by streamlining the process to make such quick and efficient granting possible and by making it easy to show funders how effective the foundation has been. They also give staff transparency and visibility into the grants lifecycle and let them see, at any given point, what requests are in the pipeline, including an overview of the budget, what each program is spending, and how quickly dollars are going out the door.

Jason said he breaks down the different types of dashboards into the operational and the strategic—the difference between *how* the foundation is doing operationally, and what it is doing strategically.

“Where is my money? Who’s moving too slow? Where do we need to pick up the pace? Is our grant-making doing what we set out to do, basically,” he said. “If we said we’re going to spend this much money on this issue, initiative or region, we want to get in there and see if we’re meeting those goals.”

The dashboards are interactive and dynamic, and if any data changes while someone is using them, they see those changes real-time.

Tailoring Dashboards to Users

Users can set their dashboards to show them exactly what they want to see each time they log in to the system, and can have multiple dashboards to show, for example, everything from what needs to be signed and what requests are due to how many requests are in the pipeline, how many dollars are in the pipeline, or what’s the average request amount. They can also generate ad hoc reports and pivot from summary view to detail view to visualizations with charts.

“What we try to do is kind of democratize the process of getting data in and out.”

“There’s a conversion funnel that shows how long it took each request to become a grant, and each step along the workflow for our operations team trying to streamline our processes,” Jason said. “From a strategic perspective, I can now toggle to a map view and see where those dollars are going by location or geo-focus.”

“Pretty pictures on dashboards with speedometers and bar charts is nice and useful,” he said, “but my own preference is for the data to be as actionable as possible.”

Excel gives this foundation an elegant and affordable solution to its dashboard demands.

Ford Foundation

New York, NY

Learning from its mistakes, a foundation chips away at finding the right dashboard solution for its needs—and at better defining and understanding those needs.

Despite staff interest, the Ford Foundation has so far not found the dashboard solution it is looking for.

“Though there has been discussion about dashboards for several years now, we’re still beta testing some basic ideas,” said Nicki Lodico, Director of Information Management. “We’ve spent a lot of time socializing the idea of dashboards and defining requirements for what dashboards should do—and even more trying to build tools that make sense and are usable and flexible.”

The foundation has developed a couple dashboard-like applications, but so far none has gone beyond the beta version—or really generated the amount of interest and enthusiasm it hoped for. “What I think is a key issue here is that none of the dashboard environments we’ve developed allows the user much flexibility,” she said. “Without the flexibility, for instance, to drill down for more details, the dashboard is of limited usefulness for reporting and analysis.”

Finding Shortcomings

One of the dashboards the Ford Foundation created—“the most elegant,” Nicki said—is embedded right in GBS, its custom grants management system. In one form or another, GBS has been around for 10 years or more, though the dashboard element was only rolled out two years ago or so.

“The GBS dashboard provides simple visual overviews of data entered into the system,” she said. “The GBS dashboard is dynamic. As actions are triggered through the system’s workflow, the dashboard is updated.”

For example, the operation section of the dashboard provides several overview charts (grants approved vs. targeted by month, average number of active grants by major program area, number of grants awaiting

“The GBS dashboard is dynamic. As actions are triggered through the system’s workflow, the dashboard is updated.”

review approval by major program area), which can be filtered by fiscal year. They also can be narrowed to the user’s cost center. The financial section of the dashboard provides overviews on monthly grant payments and grant transactions.

“While the GBS dashboard provides useful summary data, it is limited to presenting only the transactional data entered into our grants management system,” Nicki said. “It only tells part of the story about where we are in meeting our goals. For example, the system does not provide all the data and information needed to report fully on the results of a particular initiative or strategy.”

Trying New Things

To meet this requirement, the Ford Foundation developed a beta version of a program strategy dashboard that, in beta, has had varying success.

“I think we were able to generate a bit of excitement about this,” she said, “but, with limited resources, it took us a long time to build the prototype and it had

limited functionality to perform any clever or interesting analysis of the data presented. We received some good feedback from users, but we were not able to act on that feedback as quickly as we would have liked.

While the GBS dashboard enables tracking and reporting at the transactional (or grant-making) level, the strategy dashboard was developed as a tool for program staff to track and report on implementation of program strategy at the initiative level, Nicki said.

“The strategy dashboard is meant to provide a current picture of initiative-specific activities and budget,” she said, including summary-level information (objectives and approaches to achieve those objectives); budget data (projections, grants in progress, global distribution of funds); and activity data (grants approved, consultants retained).

The goal was to create those pictures in a more comprehensive way outside the grants management system, and to begin capturing a combination of structured and less-structured information from program staff, including what activities they had planned, events specific to those initiatives, and progress in terms of milestones.

“In a sense we were trying to create a social discussion platform that could be married to structured data coming from various systems in order to present a more complete picture of the status of an initiative,” she said. “This may have been too ambitious a goal for such an early prototype, which was inelegant and awkward from a usability perspective. Ideally, we would have made the dashboard information accessible via commonly used workspaces (like our intranet team collaboration sites). Because the dashboard was not well-integrated into other enterprise systems where users can see and react to the data in the context of their daily work, it lost some of its appeal.”

Don't be Afraid to Fail

Though the strategy dashboard did not go beyond its beta stage, Nicki sees it as a success. The beta clearly demonstrated an interest in the type of high-level informational reporting dashboards can offer.

The project also revealed key requirements for future development, she said: to elegantly integrate this type of information into the foundation systems users work

in; to provide access to such information quickly and easily via mobile devices; and to provide the flexibility and tools to drill down to a finer level of detail for further analysis of the data.

“We’ve developed something that’s very complex and not very flexible when what we want is something incredibly flexible.”

“We’ve learned a lot from our users through the course of this project,” she said. “And while we put significant time and resources into developing the dashboard prototype, we likely will turn our attention to defining a larger enterprise data warehousing strategy. Defining a data warehousing strategy is part of our technology road map, and it’s going to be a long-term effort. It will lead naturally to our ability to report more intuitively, flexibly, and, with the right tools, more elegantly.

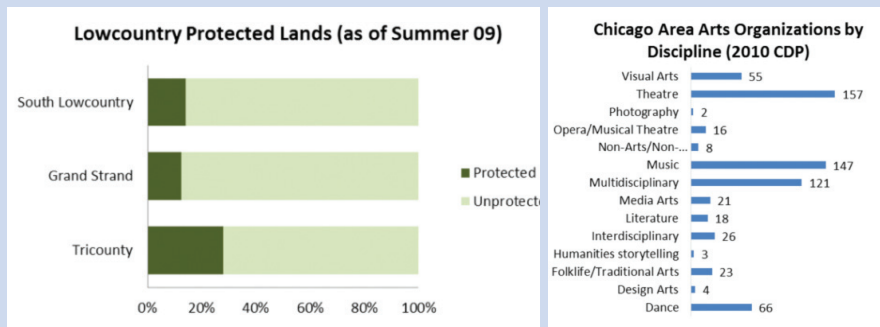
“We’ve probably invested more resources than we realize,” she said. “This has been a significant effort in terms of people-time and development-time. But the investment so far is probably exactly the right one, because our efforts have helped us to refine our requirements.”

Each iteration—even those that fail—brings the foundation one step closer to truly identifying and defining goals for usable dashboards, and one step closer to meeting them.

Gaylord and Dorothy Donnelly Foundation

Chicago, IL

Foundation staff use Excel-based dashboards to answer a board request—and find the creation process influencing staff efforts in unexpected ways.



When members of the Gaylord and Dorothy Donnelly Foundation's board of directors began to see more and more dashboards in use by other boards on which they also served, they wanted dashboards at GDDF, too—a directive more clear in intent than specifics.

"It was a little squishy," said Grants Manager Susan Clark. "We didn't know what it would be. That happened at the same time we were focusing our grant portfolio, trying to categorize it in ways that made sense, focusing our work on initiatives rather than making a lot of grants.

"Once those initiatives started forming, we had outcomes and goals associated with them, but there was no sort of feedback loop to the board to show how we were doing with them," she said. "We started meeting to define baseline data for each initiative and tracking and doing visualizations for the board."

Since then, the foundation has fleshed out dashboards for a few different initiatives and is developing more for others—more than just grant dollars, they cover staff time, consultant tracks, and other information not tracked by the grants management system—all designed in-house using Excel.

"Everything ends up in Excel," Susan said. "We did it all in house for a couple of years, last summer we had a summer intern working on a another project who helped us retool the spreadsheets so it was even easier for data collection and now we have one big Excel database."

The only real cost was staff time, she said, plus fees for consultants hired to help program staff with indicators during the implementation process. The system works almost flawlessly to meet the foundation's needs.

"We have a Word doc that links to all our Excel images so we can explain the charts more narratively instead of just having the charts."

"We were printing PDFs from Excel and showing those to the board, but our goal is to have it be more interactive to let people dig in as deeply as they like," she said. "We have a Word doc that links to all our Excel images so we can explain the charts more narratively instead of just having the charts. We have a dashboard with all the little charts on it and you dig into the Word doc.

“It’s static, not interactive,” Susan said. “You can’t drill down—we don’t have that. Moving forward, the more that we finalize as much as you can finalize goals and indicators, we might look into something a little more up-to-date.”

Learning from Dashboards

Prior to the dashboards, the foundation mostly used text paragraphs to convey information to board members. “There was not a lot of visualization going on,” she said.

Board members see the dashboards each year at the November board meeting, and though foundation staff haven’t begun using them yet, Susan said the dashboards may be influencing staff in unexpected ways.

“I think they may be helpful in helping us think about each of our initiatives,” she said. “While we might not be referencing our dashboard, it’s in the back of our mind when we’re talking about grants we’re awarding or projects we’re taking on. It’s made us focus on having goals that are measurable—our initial goals were very lofty for this, and goals that aren’t measureable are impossible to measure.

“When you think about things and drill down into the data you can come up with interesting data points that help you focus what to do—a lot of trying to find the perfect data point,” she said. “It’s helped us get out, helped us fine tune. We were positive the ones

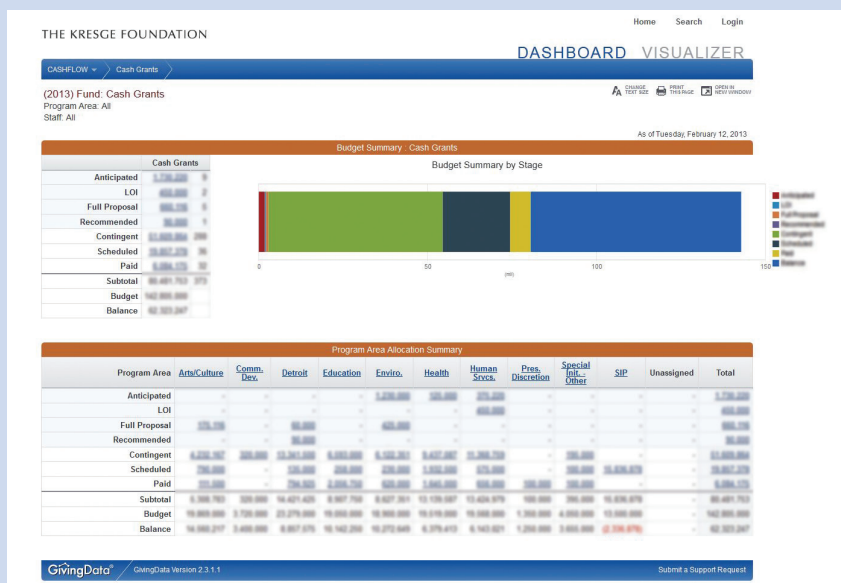
“While we might not be referencing our dashboard, it’s in the back of our mind when we’re talking about grants we’re awarding or projects we’re taking on.”

we had were the ones we were going to go with, and they’ve all changed.

“If you think you’re going to do something one way, be open to it changing,” Susan said. “Once you look at that data visually and see this big piece of pie that is un-coded and not attached to anything, it might be time to change it.”

The Kresge Foundation Troy, MI

A foundation customizes an external dashboard solution to fit its data-and-workflow requirements.



In 2010, Marcus McGrew, Director of Grants Management at The Kresge Foundation, attended a conference where he saw a demo for Gracombe IT Solutions' Giving Data software—a dashboard, data visualization, and grantmaking analytics platform for philanthropic organizations—that impressed him.

"I brought the idea back to the foundation, pitched it to program directors to start, along with IT, and got buy-in," he said. "We were given authority to move forward and implement the dashboard with a great deal of customization to meet our needs at Kresge."

The foundation launched the tool in late November 2011, and over the first year of use, the grants management team worked with IT to tweak it to better fit staff needs.

"We've added some additional enhancements," Marcus said. "My team, the grants management team, and program staff members use it, and with the latest enhancements we believe communications and even HR and finance will be able to use it."

Customizing an Off-The-Shelf Product

The system integrates with the foundation's GIFTS database, from which it pulls data. Most of the customization work involved integrating Giving Data with the foundation's programmatic structure and workflow.

"It allows us to get in depth at the 30,000-foot view, but also drill down to detailed info."

"It's driven by cash payments, and there's a module that lets you look at your data in a very appealing way," Marcus said. "I would say that going into the project we really were looking for a tool that would offer real-time data and allow staff to manage and forecast their portfolio data. My opinion may be a bit biased, but I think we've done that. [This year] we're going to roll out an evaluation of the dashboard to see if it's meeting the needs of foundation staff. I think we're expecting really positive feedback."

Information Systems Manager Rebecca Smith said Giving Data provides a view of the grants management cash flow and "touches all areas of our work from cash grants in certain program areas to social investments."

"It allows us to get in depth at the 30,000-foot view, but also drill down to detailed info," she said.

“I think it’s important... to make certain it reflects how you work, but also to make room for the evolution of how you work.”

“Down to payments, the grants themselves, contacts and the like. People can choose to see the amount of information they’d like to see.”

Since it is cash flow-based, Giving Data lets staff track their budgets in the current year or any future year—the Kresge Foundation built its dashboard out to 2018, which is the year to which it has committed payments for grants. The dashboard also lets staff see grant information throughout the workflow from LOI to payment, showing grant money as it flows through the system.

Rebecca said that, upon implementation, the foundation considered integrating Giving Data with the foundation’s financial information but decided against it. “We explored it and at the time we decided it wasn’t an appropriate place to display financial information,” she said. “As buy-in continues, I can’t see why that wouldn’t evolve.”

Going All-In

“If we would do anything differently, we would probably want to do more custom work for our social investments,” Marcus said, “but we’ve actually made the dashboard work to show our social investments quite well.

“I think it’s important... to make certain it reflects how you work, but also to make room for the evolution of how you work,” he said. “We have three tiers we use: program area, focus area, and strategies. You can drill down from tier one to tier three for any of our six

program areas and see what dollars have been spent in each area.

“Everything that’s in GIFTS is visible in our dashboard—geographic areas, funding history, type of support we offer to that organization, contact persons there, the list goes on and on,” he said. “I think the data are framed in a way that’s very user friendly, easy to digest, intuitive tool, leaves very little to your imagination.”

Rebecca added that the foundation has the ability to connect with other systems, like GuideStar, and to see information that has been submitted to the Foundation Center—for example, what other funders have contributed to an organization area, and census data for a given organization.

With a year of use under its belt, the Kresge Foundation is pleased with the solution, Marcus said, though for it to work completely, staff have to commit to using the GIFTS database/Giving Data combination completely.

“I would suggest program staff members throw away all their shadow reports and use GIFTS to really manage their pipeline,” he said. “At one point we did not have that capacity, but after the dashboard was implemented, we added that capacity, and now they’re able to manage their pipeline.”

He would also encourage program directors to use the dashboard to keep an eye on how their portfolios are performing and what funds are available for future years, as the system lets them see data for the next five years.

Process Leads to Success

Overall, he said, the foundation’s experience with Giving Data has been great, the challenges few.

“I hate to make it sound so perfect, but this platform was built specifically to extract data from the GIFTS database, so all we had to do was customize the out-of-box product to meet our needs,” he said. “I don’t know that the process would have been so seamless if we had tried to build a dashboard from scratch. A lot of this work was made seamless because of the really great work of a peer to peer group that was here before I came to the foundation.”

“We’re always looking for ways to improve our grantmaking, whether it’s a process or strategy or focus areas, and the dashboard puts that in front of us every day.”

Rebecca agreed that the peer group helped iron out any wrinkles before they could occur. “We went through that process to design how we do our work and how we code our work, so with that blueprint we were able to lay it over the out-of-the box product,” she said. “That coupled with what was included in the product allowed us to edit it as we see fit.”

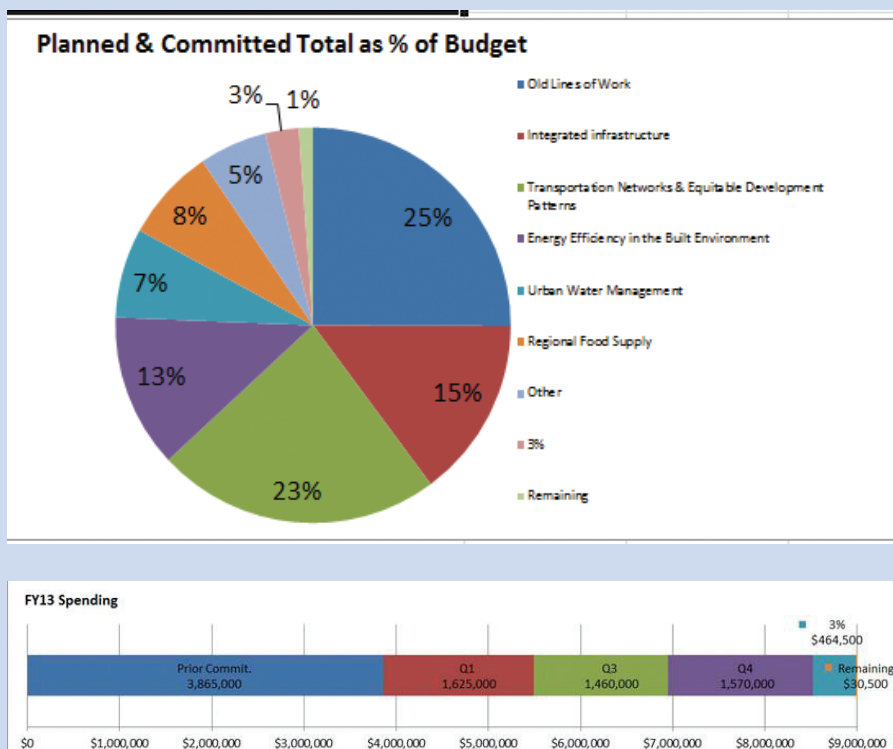
Marcus recommends that collaborative approach to other foundations looking to tackle a similar project. “We got buy-in before we even began to move forward,” he said. “We had a consultant company come out and make a pitch to program directors and pertinent staff and we kept them updated.

“We’re always looking for ways to improve our grant-making, whether it’s a process or strategy or focus areas, and the dashboard puts that in front of us every day,” he said.

Surdna Foundation

New York, NY

Excel gives this foundation an elegant and affordable solution to its dashboard demands.



For the past several years, the Surdna Foundation has been using Microsoft Excel-based dashboards in board books to present board members with immediate information about the foundation's work fostering sustainable communities guided by principles of social justice. To create the dashboards, the office of grants management exported information from the grants management database into Excel—a simple approach using an existing tool. No additional software needed to be purchased, and the only cost to set them up was staff time.

The foundation's internal staff also use Excel workbook-based dashboards that let them plug in numbers over the course of the year and play with them to create "what-if" scenarios. The dashboards are set up to allow them to look at funding by quarter, by line of work, or within a certain program area, for example.

"It's a big kind of master budget planning," said Jonathan Goldberg, Director of Grants Management and Information Systems. "Excel does all the work. They can plug in the organization's name and potential grant dollars, allocate how much of that grant might go to other lines of work, and it rolls up and gives them a true picture of what their spending is by their interest areas—which you'd have an impossible time doing in most grants management systems.

"Beyond that, you can plug in target numbers for lines of work and other areas, and it's keeping track of where you are toward those targets," he said.

Replacing Shadow Systems

The genesis for the dashboards was staff interest in showing not just what they had done, but what they could do—the exact thing many grants management systems are unable to do. Many staff members had built Excel spreadsheets to do what they could not do in MicroEdge GIFTS, and it seemed clear that they wanted a better way to do that.

The genesis for the dashboards was staff interest in showing not just what they had done, but what they could do.

“They had developed all these shadow Excel systems because they weren’t that interested in looking at what they’d done, but what they could do,” Jonathan said, “so we wanted to find a way to meet that demand.”

Borrowing from some of the Excel workbooks staff had created, and creating some new ones, he created a formalized Excel file built upon staff process. The development process started with a single question: Why do people use dashboards, and how does the information help make decisions?

“We have program staff, and an office of strategy, and a president, and a board, and each has different needs,” he said. “Strategy folks are looking at lines of work and what’s being allocated in those in terms of what the programs are telling them they need to push. Staff are tracking budget lines, what their targets are for each area and how are they doing with that. Geography becomes important to a lot of folks, there are a lot of things we do differently based on different roles.”

From Buy-In to Acceptance

Staff greeted the new “product” with open arms. “It’s been quite good,” Jonathan said. “Folks really use it, and that’s the important thing.”

The spreadsheets create lists of data for the board book and include a page of dashboards that populate themselves based on the entered data. The dashboards include charts that show the number of approved grants, spending by quarter, program grants, and more. Another chart compares actual expenses to budgets for each line of work, and another offers a five-year look at how much of a program’s budget is taken up by prior commitments.

“Now we have a way of looking cross-program, and along with all that, you’ve got a bunch of different views of planning data and view data,” he said. “You can look at your overall three-year budget, you can look at how it breaks down by lines of work, you can look at budgeting—that is to say, the programs can change what their estimates are for lines of work.”

The dashboards include charts that show the number of approved grants, spending by quarter, program grants, and more.

All staff members have access to the dashboards and use them in their day-to-day work.

“There’s always tweaks here and there that people ask for, but we seem to have kind of hit a sweet spot at this point,” he said.

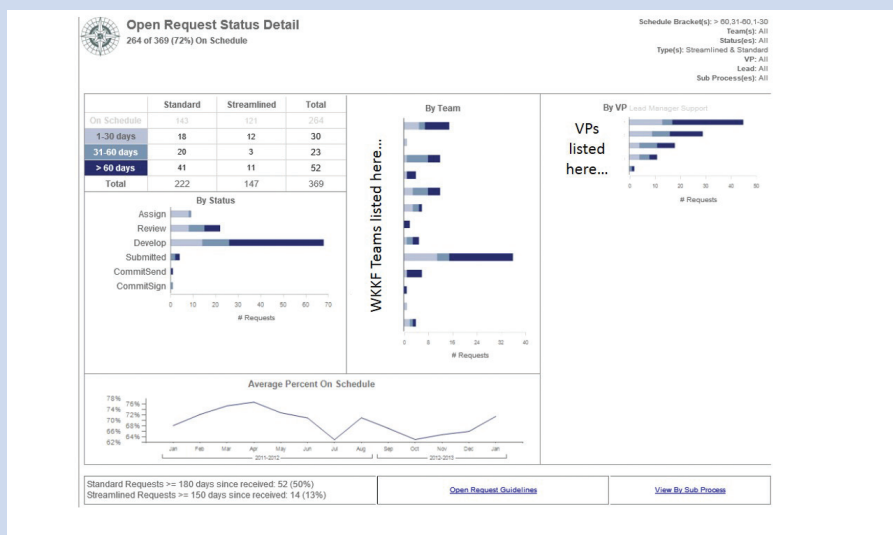
Because they’re built in Excel, there was no cost for additional software—the only expense was his time. The result is a simple, elegant solution that meets staff needs.

“We did a survey to see what board members look at in their board books, and the dashboards came up high on the list for a variety of different reasons,” Jonathan said. “I think we’re pretty pleased with where it’s come to. There’s no silver bullet, but we’re plugging away to make it better.”

W.K. Kellogg Foundation

Battle Creek, MI

A strong business intelligence effort leads to strong buy-in from across the organization for dashboards that support foundation staff's work.



The W.K. Kellogg Foundation looks at its business intelligence effort in three ways, according to Director of Technology Tim Dechant—process analysis, portfolio analysis, and impact analysis—but so far has focused its dashboard efforts on just one. To help analyze its processes, foundation staff use two sets of dashboards.

The first tracks payout management and program area to show how the foundation is doing against payout targets and budgets. The second shows how well the foundation is hitting guidelines set by management, and is broken down by program area with specific sub-dashboards by lead, manager, support, and other categories to allow other staff to see where things tend to bottleneck.

Capitalizing on Technology

The dashboards pull data from the transactional systems staff use every day, including the grants management and financial systems. This data, including requests for funding, workflow, and other information, is transformed and stored in a data warehouse in a format that facilitates the ability for staff to “slice and dice” the data, Tim said. The foundation relies on the Microsoft Business Intelligence suite to extract, transform, and then ultimately display the data.

The dashboard reports themselves are built in SharePoint 2010 and were designed by the foundation's Business Intelligence core team with input from end

“They’re interactive in the sense of lots of drilldown into specific lists. We’re not doing the kind of what-if stuff yet.”

users. The staff were excited by the possibilities, and responded with suggestions about additional ways to use the dashboard technology.

This platform “gives us different ways to slice and dice data, so we’re taking transactional data not really conducive to easy reporting and putting it into a cube that’s basically visual reports within an activity on top of the datasets,” he said. “They’re interactive in the sense of lots of drilldown into specific lists. We’re not doing the kind of what-if stuff yet.”

The dashboards regularly pull data from the grants management and financial systems to create a composite view that, historically, staff would have needed multiple systems to aggregate in a single place.

Look and Feel Matters

“We use a lot of different bar graphs, things that are pretty simple to interpret—not the speedometer charts or anything like what you see on dashboard advertisements,” Tim said. The choice to not use speedometer charts or any of the visualizations often associated with dashboards was intentional. He doesn’t believe those charts convey a lot of information—especially compared to bar charts, for example.

“The choices we made at the very top level happen to be more bar charts,” he said. “Our payout chart shows by the overall organization and by team at the very highest level how much have you paid out, how much is scheduled to be paid, how much in the pipeline, how much planning in the financial planning system, and it does it all against the target.”

Though the dashboards integrate with the foundation’s custom-built grants management system, they were not implemented for some time after the initial database launch. The foundation made do with more traditional reporting for the first five years or so.

“We really knew we could do a better job of getting data used and giving it to them in a way that could help them make decisions better,” he said. “In traditional reports, they’re fine if you get down to a drilled-down point, but we wanted to do a better job of helping people use the data to make decisions and making it easier for them to consume it.”

One thing the foundation learned during the development process was that it’s easy to underestimate how long it would take to get the data into a form that’s conducive to drilldowns and visual representations.

“We really knew we could do a better job of getting data used and giving it to them in a way that could help them make decisions better.”

“From the meeting to our first real production dashboard was about 18 months,” he said. “I don’t mean to overstate it—we didn’t have an army of consultants, we were doing it ourselves. I don’t want to characterize it that it can’t be done in less time than that, but we did it ourselves.”

His best advice to other foundations looking to implement dashboards?

“Try to get a cross-functional team involved, with executive officers and senior management,” he said. “We really found it useful to roll this out to teams via discussions at the team level rather than a big ‘Ta da!’ We went around team to program team, operational team to operational team, having more discussions and demos and backgrounder context setting, which is really important.”

ABOUT TAG

The Technology Affinity Group (TAG) is a membership organization of foundations that promotes the understanding of how information and communications technology can help its members further their philanthropic goals.

TAG is an active community of professionals responsible for information and communications technology in the philanthropic sector. The community provides the highest quality resources and learning opportunities in an open and trusted environment.

ABOUT IDEALWARE

Idealware, a 501(c)(3) nonprofit, provides thoroughly researched, impartial and accessible resources about software to help nonprofits make smart software decisions.

Nonprofits maintain a complicated relationship with technology. Most know that software can streamline their processes and help fulfill their missions more efficiently and effectively, yet lean staffing and tight budgets mean they're unable to devote the time necessary keep up with new technologies and find the right tools.

From the most basic questions (like how to use software to help manage emailing hundreds of people at once), to the more complex (like understanding the role of social networking and mobile phone text-messaging in fundraising strategy), organizations need a trusted source for answers.

Idealware provides an authoritative online guide to the software that allows U.S. nonprofits—especially small ones—to be more effective. By synthesizing vast amounts of original research into credible and approachable information, Idealware helps nonprofits make the most of their time and financial resources. And, our reach is expanding! Our reports have been downloaded hundreds of thousands of times.

Who's behind Idealware? Idealware is made up of a small, growing staff—aided by a community of experts, including content partners and contributors—and overseen by a remarkable board and set of advisors. work.